International Journal of Educational Research and Reviews ISSN: 2329-9843 Vol. 3 (2), pp. 047-061, April, 2015. Available online at www.internationalscholarsjournals.org © International Scholars Journals

Full Length Research Paper

How provision for ADHD can be made within Schools

Mohaned Abed

Program of Educational Graduate Studies, King Abdulaziz University, P.O. Box: 80200, Jeddah 21589, Kingdom of Saudi Arabia.
E-mail: mabed@kau.edu.sa

Accepted 31, May 2014

Attention Deficit Hyperactivity Disorder (ADHD) impacts on the social, emotional and academic progress of children, resulting in significant distress and worry on them those to whom they are linked, either directly or indirectly, such as parents, teachers and peers. ADHD is a psychological condition seen frequently in children (Rowland, Lessene and Abramowitz, 2002). Principal ADHD symptoms comprise inappropriate degrees of inattention, impulsivity and hyperactivity (World Health Organization, 1992). However, children with ADHD require special education, and this paper believes that such children will succeed and achieve more success in schools if appropriate and regular assistance is provided.

Key words: ADHD, diagnosis, symptoms, Co-morbidity, assessment of ADHD, intervention, treatment.

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) (APA, 1994; 2000), also known as Hyperkinetic Disorder in the International Classification of Diseases (ICD-10) (World Health Organisation, 1992), is referred to as 'minimal brain dysfunction' (Denckla, 2003).

ADHD is recognised as an Attention-Deficit and Disruptive Behaviour Disorder by the American Psychiatric Association (APA, 2000); this condition describes a varied group of children, each of whom have age-inappropriate problems associated with attention, distractibility and, in a significant amount of cases, impulsivity and over-activity (Julien, 2005; Hulme and Snowling, 2009).

The *Diagnostic and Statistical Manual of Mental Disorders* identifies three ADHD subtypes: predominantly inattentive; predominantly hyperactive-impulsive; or combined (APA, 2000). The latter subtype indicates a child who meets the symptom criteria for both inattention and hyperactivity-impulsivity. ADHD is a prevalent childhood condition known currently to affect 3-7% of school-aged children (APA, 2000; Mattox and Harder, 2007), with a worldwide prevalence of 5.2% (Polanczyk *et al*., 2007).

However, when using the DSM-III-R or DSM-IV, prevalence rates of ADHD are subsequently higher than when using the ICD-10 criteria (Skounti *et al*., 2007). Moreover, the boy: girl ratio stands at 4:1 to 9:1 (APA, 2000).

Symptoms

Characteristically, symptoms comprise behaviours that all children display to some degree; it is only in severe cases, when at least six symptoms are exhibited for one aspect (inattentive or hyperactive-impulsive), that ADHD can be diagnosed (Durston, 2003). Although there are three subtypes of ADHD currently identified by the DSM-IV, 80% of children diagnosed with this disorder exhibit symptoms for all three aspects (Buitelaar, 2002). ADHD has been revealed to include deficits in executive function (EF) (Barkley, 1997a; Martinussen *et al*., 2005), state regulation (Sergeant, 2005), inhibition problems, self-control (Barkley, 2003) and delay aversion (Sonuga-Barke, 2005). However, studies have indicated that EF is linked particularly to inattention symptoms, while controlling hyperactivity/impulsivity symptoms (Martell, Nikolas and Nigg, 2007). Nevertheless, the three subtypes of ADHD have not been found commonly to have dissimilar EF profiles (e.g., Geurts *et al*., 2005; Huang- Pollock *et al*., 2007).

ADHD children are at high risk of suffering antisocial problems (Young, 2003; Brassett-Grundy and Butler, 2007), which may also be associated with obesity (Agranat-Meged *et al*., 2005). Moreover, at least 50% of children with ADHD experience problems with their relationships with peers and teachers (Hoza, 2007; Stormont, 2001; Clark, Prior and Kinsella, 2002). Further,

an estimated 25-50% of children with ADHD have sleep-related problems (Cohen-Zion and Ancoli-Israel, 2004; Owens, 2005) and demonstrate poor performance in tasks requiring continuous attention (Spencer *et al*., 2007).

ADHD children are known to experience difficulties in several domains, including learning, language development (Pelham, Fabiano and Massetti, 2005), schoolwork and academic attainment (Hinshaw, 1994; Barry, Lyman and Klinger, 2002), and low self-esteem (Sandberg, 1996; APA, 2000). ADHD affects the sense of well-being and self-worth in children (Riley *et al*., 2006), along with their perception of time (Barkley, 1997b) etc. Moreover, parents of children with ADHD report high stress levels and social isolation, in addition to receiving less overall social support (Johnston and Mash, 2001; Lange *et al*., 2005; Podolski and Nigg, 2001). Indeed, the negative effects on the family of the child with ADHD can, ultimately, generate further parenting demands (Seipp and Johnston, 2005). Siblings of children with ADHD report feeling victimised by the aggressive acts experienced (Kendall, 1999). However, the positive aspect of ADHD is that it does not affect intelligence, as defined and measured by intelligence tests (Wedner, 2000).

Co-morbidity

A significant incidence of co-morbidity exists in individuals with ADHD. Two-thirds of primary school-aged students with ADHD who are referred for clinical assessment have at least one other diagnosable psychiatric disorder (Julien, 2005). Co-morbidities with ADHD include: conduct disorder (CD) (Loeber *et al*., 2000); oppositional defiant disorder (DCD) (Dewey *et al*., 2002; Barkley, 1990); learning disorders (Biederman *et al*., 1996); anxiety disorders (Brown, 2000); resistance to discipline; mood disorders (especially depression); excessively emotional behaviour; aggression; substance abuse (Monastra *et al*., 2002; Wolraich *et al*., 1996); motor tics (Pliszka, Carlson and Swanson, 1999); and deviations in social behaviour (Santosh and Mijovic, 2004). Moreover, ADHD is connected with the following psychosocial problems (Kuperman *et al*., 2001; Biederman and Faraone 2006): obsessive compulsive disorders (OCD) (Geller *et al*., 1996); developmental coordination disorder (DCD) (Raggio, 1999; Pitcher, Piek and Hay, 2003); chromosomal-genetic disorders (Backes *et al.*, 2000; Hagerman and Hagerman, 2001); neurological disorders (Dunn *et al*., 2003); sleep-related problems (Mick, 2000); bladder and bowel control problems (Duel *et al*., 2003); height problems (Biederman *et al*., 2003); and allergies (Barkley, 1998).

Causes

ADHD has been recognised as a complex condition with both genetics-related (Rasmussen *et al.,* 2004) and environmental components (Doyle *et al.,* 2001); thereby indicating the extremely high possibility that it is a hereditary condition (Wender, 2000; Faraone *et al.,* 2005). Moreover, it has been established that specific genes are linked to specific subtypes of ADHD (Lowe *et al.,* 2004; Rasmussen *et al.,* 2004). Current theoretical formulations have also highlighted that ADHD ought to be considered a heterogeneous condition (Castellanos *et al.,* 2006); in fact, there is a 40% probability that a child with ADHD also has a parent with the disorder (Berk, 2004). Conversely, it has also been found that the condition could be acquired; a number of children have a combination of genetic and acquired ADHD, with no discernable difference between the two (Voeller, 2004). Some believe that the actual cause of hyperactivity in children is environmental and, in particular, that it is diet-related; however, researchers have found that altering a child's diet has only a limited effect on levels of hyperactivity (Neuwirth, 2005). The most broadly-held theory hypothesises that a combination of factors causes ADHD, including biology, genetics, environment and psychosocial (Biederman and Faraone, 2005). Currently, although the etiology of ADHD is unidentified (Taylor *et al.,* 2004), it is proposed that it is multi-factorial and polygenic in nature (Faraone *et al.,* 2005).

Schools and ADHD

When children enter the schooling system, several find it to be a comforting environment, while others may be resistant to change (Lougy, DeRuvo and Rosenthal, 2009). Furthermore, children with ADHD are inclined to behave inadequately when placed in a highly-structured classroom environment (Lauth, Heubeck and Mackowiak, 2006). A child may express hyperactive and impulsive behaviour, and/or experience difficult sustaining attention when required (Rapport *et al.*, 2009).

A good illustration of a difficult situation encountered by a child with ADHD is the capacity to sit in a seat and merely listen to instructions (Fitzgerald, Bellgrove and Gill, 2007). The academic issues associated with ADHD emerge as non-specific to one particular subject area (Vile Junod *et al.*, 2006) and lead to poor scholastic outcomes (Rapport, Scanlan and Denney, 1999).

The rate of ADHD prevalence in schools is estimated at around one child per regular classroom (Jones and Chronis-Tuscano, 2008). In the classroom setting, it has been found that there are many differences between children with and without ADHD , including the fact that they are more distractible (Miller, Koplewicz and Klein, 1997), Intrude on other children's activities, go off-task more frequently for the duration of classroom direction, and break the rules of the classroom (e.g., Abikoff *et al*., 2002). In addition, ADHD-children are recognised to prepare less for class, misread instructions, be disruptive,

attain lower grades, and exhibit poor studying skills (Zentall, 1993; Evans, Axelrod and Langberg, 2004). Furthermore, they also demonstrate, through their behaviour, a preference for less difficult work and, subsequently, set lower self-expectations (Hoza *et al*., 2001; Carlson et al., 2002). Moreover, such children drop–out of, or are expelled from, school more frequently (Barkley *et al*., 1990; Faraone *et al.,* 1993).

Aside from the negative impacts of ADHD on the individual child, the condition also has a detrimental effect on the daily lives of professionals at school; for example, it might make the professional life of a teacher within the classroom worse and less enjoyable (Raggi, 2003; Reid et al., 1994). When a child with ADHD is present in the classroom, teachers might spend additional time giving commands than concentrating on lessons; ultimately, causing teachers to feel that these particular children might be creating barriers to their lesson planning and obstructing the learning of other non-ADHD children (Reid *et al*., 1994). Moreover, school psychologists spend a considerable amount of time with teachers concerning consulting children with ADHD (Demaray, Schaefer and Delong, 2003).

From my own professional experience in schools, I believe ADHD can be damaging to education as the children may have language disorders (Tirosh and Cohen, 1998), reading disorders, disorders of written expression, dysgraphia (Shaywitz *et al*., 1992) and mathematics disorders (Semrud-Clikeman *et al*., 1992). For this reason, schools are now involved more closely in the procedures for handling such a disorder, and are more concerned that these procedures should result in effective and positive outcomes for the child, the family and the overall school community. However, it is vital for school staff to recognise that a number of ADHD behaviours are being possibly adaptive in various contexts and situations (Hartmann, 1996, 2003; Jensen *et al*., 1997).

Identification

In the majority of ordinary classrooms, it is normal for all children to be inattentive, impulsive and overactive at times; therefore, it is the duty of teachers to notice whether children are displaying these characteristics much more than average, and then notify parents that their child is displaying some ADHD symptoms (Dupaul and Stoner, 2003; Zentall and Javorsky, 2007). However, several children with ADHD are not identified until their school performance becomes affected by their symptoms (Sayal *et al*., 2002; Sayal, Goodman and Ford, 2006; Goodlin-Jones *et al*., 2009); however, it is likely that this could be caused generally by the limited identification of child-related mental health conditions by General Practitioners (GPs) (Sayal, 2006a). Contrasting primary care, classrooms are the settings in which there is daily contact, where ADHD symptoms are readily visible, and where teachers also have significant knowledge of suitable behaviour development (Shaywitz and Shaywitz, 1992). Therefore, an untested approach to enhance the children with ADHD identification is conducted via schools. With this consideration in mind, teachers might be superior in identifying children with ADHD, compared with a primary healthcare professional(Sayal, 2006b).

It is believed that the first adults to detect the early symptoms, which leads ultimately to a diagnosis of ADHD, are frequently teachers (Sax and Kautz, 2003), although such symptoms are regarded as educational problems rather than health-related concerns (Bussing et al., 2002). Therefore, a lack of knowledge and training has been recognised as the main barrier to identifying ADHD in schools (Bussing and Leon, 2002; Walter, Gouze, and Lim, 2006). Thus, teachers ought to be moderately well-informed concerning the symptoms of ADHD (Sciutto, Teresen and Bender-Frank, 2000).

From my experience, I believe that teachers are able to identify children with ADHD once they have acquired adequate knowledge concerning its relevant characteristics. Teachers could then take the crucial first step in helping a child with suspected ADHD to get the help they need simply by looking for signs of inattention; failure; failed attempts to follow through on tasks; difficulty in organising tasks and activities; consistent forgetfulness; and hyperactivity and impulsivity. When a teacher is concerned about a child's likelihood of having ADHD, they should discuss the matter with the psychologist or guidance counsellor within the school, if one is available (Hughes and Cooper, 2007). With this consideration in mind, it is believed that teachers, school psychologists and other school staff are in a unique position; one that ultimately enables them to frequently interrelate with children and contribute actively to their progress (Lopez, 2007). Thus, their main role in the identification of ADHD is recognising the symptoms and subsequently passing on the information to a relevant health professional.

Assessment of ADHD

In the majority of schools, the school psychologist and/or counsellor is usually requested to assess pupils for potential referrals of ADHD (Hartnett, Nelson and Rinn, 2004). Although it is frequently the school psychologist who conducts the assessments, the guidance counsellor could still be involved; the extent and type of involvement would depend upon the needs of particular pupils and schools (Bauer, Ingersoll and Burns, 2004). The major role of the school psychologist and/or counsellor is to assess the severity of characteristics with regards to learning and communication abilities (Hoff, Doepke and Landau, 2002). They might also evolve and apply behaviour plans with the objective of tackling any of the

teacher's apprehensions and selecting suitable methods and measures in order to make an appropriate assessment (Demaray, Elting and Shaefer, 2003).

There are three main objectives of assessing children with ADHD: identifying the presence of ADHD symptoms and the exclusion of other probable disorders; developing an intervention plan; and determining the presence of any co-morbid conditions (Barkley, 1998). Although there is a diversity of specific procedures of assessment that might be employed by school psychologists in order to achieve these objectives, the process is nevertheless complex, as there is no critical test for ADHD (Selikowitz, 2004); this is not, however, due to a lack of attempts by researchers but to the complicated interaction of symptoms of ADHD with the surrounding environment (Goldstein and Naglieri, 2006).

In conjunction with key school staff, the parents or main carers of the child and a doctor and psychiatrist can work together to construct a comprehensive assessment of ADHD (Hoff, Doepke and Landau, 2002). Studies have found that a key factor in providing an accurate diagnosis and effective intervention is successful communication between all the individuals involved (Pliszka, Carlson and Swanson, 1999; Hall and Gushee, 2000). Through classroom-based assessments, professionals endeavour to obtain information regarding the history of the child with ADHD, provided by parents, family members and others who assist in raising the child. Full and accurate background information is also considered useful when attempting to identify and confirm whether or not a child has ADHD (Wedner, 2000). Conversely, deficient communication could increase the length of the assessment process, resulting in an imprecise diagnosis and diminishing the results of the intervention (Magyary and Brandt, 2002).

After the teacher has made the initial referral to the school psychologist, the child's characteristics are noted, alongside contextual factors, all of which could affect the referral process (Lloyd, 1991; Andrews, Wisniewski and Mulick, 1997). The school psychologist ought to make use of several methods of assessment (Shapiro and Heick, 2004), which may include interviewing the child and his or her teachers and parents, observing the child in the classroom and administering indirect assessments (Hoff, Doepke and Landau, 2002). The literature on ADHD presents many behaviour rating scales that may be applied; such as, assessments of intelligence, types of structured interviews with the learner and direct observation methods (Ryan and McDougall, 2009). If the school psychologist's assessment finds evidence that the symptoms are having a negative effect on a child's education and growth, the pupil and parents, subsequently, will be referred to a specialist who can further diagnose the extent of the apparent ADHD (Sandberg, 1996). Therefore, ADHD assessments ought to comprise multiple rating tools and methods across numerous settings (Thomas and Grimes, 1995). Moreover, there is also the need to avoid using experimental or non-standardised tests, as reliability and validity are essential (Das, Naglieri and Kirby, 1994; Naglieri *et al.,* 2003). In other words, the content of the assessments must comprise four crucial elements in order to determine academic problems: querying the history of the development; the extent of meeting DSM-IV criteria should be determined by utilising interviews and behaviour rating scales; the cognitive processes; and, attainment (Goldstein, and Naglieri, 2008).

Moreover, it is recommended that school psychologists make use of the functional analysis of behaviour (Northup and Gulley, 2001; Boyajian *et al.,* 2001) and the consultative problem-solving model (Landau and Burcham, 1996). Moreover, the aim of assessing ADHD behaviours in schools ought to be associated explicitly with future interventions (Rief, 2005).

Diagnosis

There are three key features that ought to be present for a child to be diagnosed with ADHD (APA, 2000); t inattentiveness, hyperactivity and impulsivity. These conditions have to emerge prior to the age of seven and persist for at least six months in a minimum of two different environmental settings (APA, 2000). The symptoms should be comparatively stable, chronic and considered interference in relation to the key activities of life (Volkow *et al*., 2001). When these conditions are fulfilled, the child is then suspected of most likely suffering from ADHD (Sandberg, 2002).

It is believed that it is vital to diagnose ADHD early in a child's educational career, as the disorder has the potential to negatively affect a child's success in school (HaileMariam, Bradley-Johnson and Johnson, 2002). However, in various incidences, the child with ADHD is diagnosed only by the time she or he concludes their elementary school education (Neven, Anderson and Godber, 2003). Therefore, school staff could be encouraged to be more instrumental in the recognition and accurate diagnosis of the condition, as children with ADHD exhibit observable characteristics at school (Weinstein, 2004). Furthermore, while school staff play a significant role, other individuals, such as a physician or psychiatrist, should also be engaged with the aim of accurately diagnosing and intervening in cases of ADHD (DuPaul and Stoner, 2004).

When physicians and psychiatrists diagnose a child with ADHD, it is my view that they ought to apply the criteria as detailed in the *Diagnostic and Statistical Manual* (DSM), published by the American Psychiatric Association (APA), as its structured format for diagnosing ADHD is so valuable; furthermore, it contains a concise background of the disorder, including its causes and related features. However, when diagnosing a child with ADHD, it is not sufficient to identify the characteristics

solely from a list of symptoms; rather, a professional, such as a physician or psychiatrist, should be available to conduct a thorough assessment when a child exhibits multiple symptoms of ADHD.

It is believed that the professionals most capable of diagnosing ADHD are physicians, psychiatrists and psychologists (Barkley, 1998). Besides performing a clinical interview, physicians are also able to conduct a medical examination, covering vision, hearing, laboratory tests and motor coordination; this examination is utilized in order to assist in the elimination of other likely explanations of difficult behaviour (Kothari and Frosch, 2004). Moreover, according to The *European Clinical Guidelines*, the medical assessment should comprise six principle components; thereby allowing health professionals to make an accurate diagnosis. These principles are: gathering information; interviewing the child and parents/carers; observation; physical examination; the consideration and relevant diagnosis of co-morbidity disorders; and the sharing of information and psycho-education (Taylor, 2004).

Intervention and Treatment of ADHD

When the assessment is complete and the diagnosis of ADHD confirmed, there is a plethora of intervention options that can be adopted, such as pharmacological, behavioural and therapy interventions (Purdie, Hattie and Carroll, 2002). Pharmacological interventions involve a physician prescribing medication, typically a stimulant; at this stage, the physician will work with the child and parents in order to determine the appropriate dosage (O'Regan, 2005). However, only two professions are then capable of prescribing the required medication for use in the treatment of ADHD — physicians and psychiatrists (Buttross, 2007). Moreover, this paper believes that, before considering possible treatments and interventions, it is necessary to review more closely the diagnostic process. In behavioural or cognitive-behavioural intervention, the therapist will make a decision regarding the behavioural plan, part of which will be focused on considering positive and/or negative reinforcement strategies (Selikowitz, 2009). As part of this process, both the child and the environment are formed in such a way that the actively attempt to work together to achieve a successful outcome (Pierangelo and Giuliani, 2008).

Another form of treatment is therapy. A therapy schedule could be utilised to take notes on medication and/or review the achievements of the behavioural plan (Braswell and Bloomquist, 1994; NICE, 2000). Additionally, therapy could offer further encouragement to the child and the parents who are living with ADHD (Swensen *et al.,* 2003). The benefits for both the parents and child include having the opportunity to discuss and work through their frustrations so that they do not disadvantage the child's growth (Cipkala-Gaffin, 1998).

Some studies confirm that psycho-stimulant intervention is the most effective method of tackling ADHD symptoms (Kendall *et al.,* 2005). The stimulant medications, for instance, methylphenidate (MPH) and dexamphetamine, have been reported to enhance academic learning, behaviour and social functioning in 50-90% of treated children (Lubar *et al*., 1999). Other studies have found that 80% of patients demonstrated considerable alleviation in their core symptoms of ADHD (Swanson *et al*., 1993; Clarke, Prior and Kinsella, 2002; Clarke *et al*., 2005). Moreover, the most widely utilised and well-recognised treatment for ADHD is MPH (Swanson *et al*., 1995; Centres for Disease Control, 2005), which has been proven to considerably reduce the high rates of inattentive, hyperactive and impulsive behaviours related to ADHD in around two-thirds of children (MTA Cooperative Group, 1999a; 1999b). Furthermore, it has been found that MPH has a positive influence on the negative social behaviours of children with ADHD (Hinshaw, 1991; Hinshaw and Lee, 2000; Connor *et al*., 2002). However, stimulant medications have some disadvantages and limitations, which have resulted in them being deemed unsuitable treatment options for several children and families (Taylor *et al*., 2004). Moreover, at least 30% of individuals affected do not respond sufficiently or cannot tolerate the associated unpleasant side-effects of the medication (Pataki *et al.,* 1993; Spencer *et al*., 1997; Taylor *et al*., 2004; Banaschewski *et al*., 2006).

These problems emphasise the necessity for alternative, safe and effective medications (Prince *et al.,* 2000; Kehoe, 2001). Consequently, a number of non-stimulant medications have been utilised for the purpose of treating ADHD (Banaschewski *et al*., 2004). Several researchers promote the employment of atomoxetine as an effective non-stimulant medication (Bymaster *et al.,* 2002; Sadock, Kaplan and Sadock, 2007). Moreover, it has been suggested that, in order to avoid using pharmacological approaches, there is a need to conduct more research on dietary effects (Steer, 2005), as studies have revealed some evidence of effectiveness (Carter *et al*., 1993; Boris and Mandel, 1994; Schmidt *et al*., 1997; Hill and Taylor, 2001). However, while studies have shown the effectiveness of behavioural interventions in reducing the symptoms of ADHD (DuPaul and Eckert, 1997; Shriner, 2007), there is minimal empirical support for behaviour or cognitive approaches or therapy as a lone intervention for children with ADHD (Abikoff, 1991; Frazier and Merrell, 1997).

Therefore, frequently, a multi-modality intervention is proposed, combining pharmacotherapy and other methods (Cantwell, 1996; Dulcan and Benson, 1997; Hulme and Snowling, 2009), which researchers agree is the most successful way of treating ADHD (Pliszka, Carlson and Swanson, 1999; Markowitzjs and Patrick, 2008). Furthermore, cooperation and excellent communication between the parents of the child, school

personnel and professionals is highly recommended and paramount to the effectiveness of the treatment (Du Paul and Stoner, 2003). Moreover, it is hypothesised that training parents to cope is particularly essential in the effective treatment of ADHD (Cantwell, 1996). Furthermore, school-based interventions can be significant in the treatment of ADHD associated with academic and classroom problems. The results of a meta-analysis highlighted that contingency management and academic interventions are recognised as being more effective in altering behaviour than cognitive behavioural intervention (DuPaul and Eckert, 1997).

Implementing Interventions/Treatments

As children spend a substantial amount of their school time interacting with a diverse range of staff and pupils, the school is required to take an active role in the implementation of treatment and assessing its efficacy (Pliszka, Carlson and Swanson, 1999; DuPaul and Stoner, 2003). Furthermore, owing to the organisation of the classroom, if alterations in medications occur, school personnel will be able to observe the child for subsequent alterations in behaviour (HaileMariam, Bradley-Johnson and Johnson, 2002). In addition, staff are capable of reporting details, which can later be compared with baseline information collected during the clinical interview and preliminary assessment (Dupaul and Stoner, 1994). Besides being aware of medication intervention, the school should also focus on educational intervention and developing effective school context and classroom management, such as behavioural intervention and teaching strategies for children with ADHD, as well as training teachers in this area. However, from my own professional experience in schools, I believe there are many challenges to face when striving to implement treatment/intervention for pupils with ADHD. These include teachers lacking knowledge of valuable tools and methods of support for students with ADHD; difficulties in designing or implementing bespoke modifications for individual students; a lack of understanding or skills relating to teaching strategies; a lack of support from school administrations; and class size.

Behavioural Intervention and Teaching Strategies

As a primary schoolteacher, I believe that the main targets of schools' intervention are controlling the child's behaviour in order to assist him or her to pay attention and remain focused on the task in hand, controlling anger, and following the rules of the classroom. Moreover, the targets include enhancing academic performance, classroom participation and the completion of homework; teaching and maintaining suitable social behaviour; developing organisational skills; and building the child's levels of confidence and self-esteem. With so many considerations, many school teachers require effective teaching strategies for improving academic performance, and behavioural and cognitive approaches for managing the behaviours of pupils with ADHD. Moreover, it is believed that the establishment of a structured and supportive environment assists pupils with ADHD achieve success in the classroom (Taylor and Larson, 1998; Yehle and Wambold, 1998); for example, encouraging peer cooperation and physical arrangements, such as locating the child's desk near the teacher to allow them to concentrate or otherwise maintain their attention (Cook, 2005; Farrell, 2006; Dore and Brookes, 2008). Another method is to place the ADHD child facing the wall (e.g., Farrell, 2006), so that they are not interrupted or distracted by others. It is also proposed that the child ought to not sit close to windows and that bulletin boards be removed (Carbone, 2001). Moreover, in order to further facilitate the child's progress, instructions should be brief and repeated in order to make them easy to understand (Lougy, DeRuvo, and Rosenthal, 2007). Cognitive behavioural approaches should also be taken, whereby the child with ADHD is taught to regulate their behaviours, such as self-monitoring skills (McLaughlin, Williams and Howard, 2003).

In schools, there is a diversity of methods a teacher can utilise in order to help pupils with ADHD become more successful: verbal techniques (Salend, Elhoweris and Garderen, 2003); non-verbal techniques (Wang, 2004); peer collaboration (DuPaul and Eckert, 1998); classroom accommodations (Reid, 1999); individual educational plans (DuPaul, 2007);peer-informant strategies (Hoza, 2007); behavioural interventions, such as ignore-rules-praise (Rief and Sandra, 2008); time-out (Berk, 2004); behavioural contracts (Cooper and O'Regan, 2001); token economies (Hupp, 2003); daily report card systems (McLaughlin, Williams and Howard, 2003); and positive and negative reinforcement (Carlson, 1997).

From my own professional experience, the frustration of a child with ADHD is reduced if the teacher allocates extra time for completion of the task and always ensures consistency regarding rules. However, attention should be paid to reducing noise (Purdie, Hattie, and Carroll, 2002) and providing learning breaks (Abramowitz and O'Leary, 1991), and teachers should also devise and implement a plan regarding each subtype of ADHD. For example, if a child suffers with inattention problems, teachers should use a combination of audio, visual and tactile methods, as well as allowing the pupil to work on the computer whenever possible; if a child has a hyperactivity disorder, teachers could also make use of a teaching assistant who could sit near the pupil, or the child could be allowed to stand during the lesson time; or for those students with impulsivity, teachers ought to establish obvious classroom routines at the beginning of the year, emphasising the importance of adhering to them.

Teacher Training and Knowledge of ADHD

In my experience, teachers vary in their capacity to deal effectively with a student who has ADHD. Some teachers have unique experience in this area and, thus, better understanding of how to deal with the difficulties faced by the child, as well as the most important strategies that can be adopted in order to help a child to succeed; however, in contrast — and more commonly — many teachers lack the practical experience of dealing with learning and behavioural difficulties, particularly with pupils with ADHD (Frank, *et al*., 2000). Consequently, the child may not receive the appropriate services required for success in school, which is a source of frustration for both the child and the family. For this reason, the expertise of teachers in identifying and understanding the needs associated with this category is an important factor; therefore, training is required to determine and implement the appropriate solutions in the treatment of students with ADHD.

Therefore, this paper asserts that schools need to ensure all those involved are committed to helping children with ADHD. Unfortunately, this is sometimes not the case due for a variety of reasons, and part of making a school ADHD-friendly would ultimately involve training for the staff; not only in relation to skills, but also in changes to both attitude and approach. The attendance of eager and engaged teachers and the support of administration throughout the process of identification and intervention in relation to ADHD would, ultimately, guide pupils with ADHD towards educational achievement. Moreover, researchers have pointed to the fact that many teachers have mistaken beliefs or incorrect attitudes regarding children with ADHD (e.g., Jerome, Gordon and Hustler, 1994; Sciutto, Terjesen and Frank, 2000). Furthermore, 98% of the teachers supposed that they might benefit from extra training on ADHD (Barbaresi and Olsen, 1998). However, studies have indicated that training teachers to apply behavioural techniques might enhance difficult behaviours, even if the child does not fully meet diagnostic criteria of ADHD (Boyajian *et al.,* 2001; Borg and Ascione, 2001). However, I believe that since school psychologists are anticipated to assess and treat ADHD children (Reid *et al*., 1998), it is significant for them to recognise their present training and assessment practices. In addition, I believe that the notion behind this approach is that the more knowledgeable the person is regarding the characteristics and related features, the more prepared he or she will be when confronted with the difficulties of living with the disorder.

CONCLUSION

This paper has presented an overview of ADHD, including its prevalence, symptoms, co-morbidity and causes. Moreover, the paper has illustrated the negative effects of ADHD within schools —on both the child and his or her teachers — when the correct approach, attitude and knowledge are not in place; from there, the process of identification in schools demonstrated that the role of schools is key, requiring information to be communicated to a health professional. Thus, this assessment has revealed that a school psychologist should address any of the teacher's apprehensions and select suitable methods and measures to make an appropriate assessment. The major professionals who are most capable of diagnosing ADHD are physicians, psychiatrists and psychologists.

Diagnosis showed that there are three subtype conditions, which need to be displayed frequently by the child in multiple environments for at least six months prior to the age of seven. Furthermore, intervention and treatment in schools have been examined within this paper, with particular emphasis placed on the significance of the partnership with parents throughout the whole process. In addition, the importance of using diverse behavioural teaching strategies, and the training of teachers and school psychologists was also illustrated. Teachers are acknowledged as being in a valuable position to identify the condition in their students and assisting them in attaining academic achievement. Teachers play an essential role in working with healthcare professionals and parents in terms of providing pupils with support.

ACKNOWLEDGEMENTS

This article was funded by the Deanship of Scientific Research (DSR), King Abdulaziz University, Jeddah. The authors therefore, acknowledge, with thanks, the DSR technical and financial support.

REFERENCES

Abikoff H (1991). Cognitive training in ADHD children: less to it than meets the eye. *Journal of Learning Disabilities.* 24, 205-209.

Abikoff, H. B., Jensen, P. S., Arnold, L. L., Hoza, B., Hechtman, L., Pollack, S., Martin, D., Wigal, T. (2002). Observed classroom behavior of children with ADHD: relationship to gender and comorbidity. *J. Abnor. Child Psychol.,* 30, 349-59.

Abramowitz AJ, O'Leary SG (1991). Behavioral Interventions for the Classroom: Implications for Students with ADHD. *School Psychology Review.* 20, 220-34.

Agranat-Meged AN, Deitcher C, Goldzweig G, Leibenson L, Stein M, Galili-Weisstub E (2005). Childhood obesity and attention deficit/hyperactivity disorder: A newly described comorbidity in obese hospitalized children. *Int. J. Eating Disorders.* 37, 357.

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders: DSM-IV*. Washington, DC, American Psychiatric Association.

American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR, TM*. Washington, D.C., American Psychiatric Association.

Andrews TJ, Wisniewski JJ, Mulick JA (1997). Variables Influencing Teachers' Decisions to Refer Children for School Psychological Assessment Services. *PSYCHOLOGY IN THE SCHOOLS.* 34, 239-244.

Atkins MS, Pelham WE (1991). School-based assessment of attention deficit-hyperactivity disorder. *Journal of Learning Disabilities.* 24, 197-204.

August GJ, Realmuto GM, Macdonald III AW, Nugent SM, Crosby R (1996). Prevalence of ADHD and Comorbid Disorders Among Elementary School Children Screened for Disruptive Behavior. *J. Abnor. Child Psychol.,* 24, 571.

Babinski LM, Hartsough CS, Lambert NM (1999). Childhood Conduct Problems, Hyperactivity-impulsivity, and Inattention as Predictors of Adult Criminal Activity. *J. Child Psychol. Psychiatry.* 40, 347-355.

Backes M, Genc B, Schreck J, Doerfler W, Lehmkuhl G, Gontard AV (2000). Cognitive and Behavioral Profile of Fragile X Boys: Correlations to Molecular Data. *Amer. J. Med. Genetics.* 95, 150.

Banaschewski, T., Coghill, D., Santosh, P., Zuddas, A., Asherson, P., Buitelaar, J., Danckaerts, M., Taylor, E. (2006). Long-acting medications for the hyperkinetic disorders. A systematic review and European treatment guideline. *European Child & Adolescent Psychiatry.* 15, 476-495.

Banaschewski T, Roessner V, Dittmann RW, Santosh PJ, Rothenberger A (2004). Non-stimulant medications in the treatment of ADHD. *EUROPEAN CHILD AND ADOLESCENT PSYCHIATRY.* 13, 102-116.

Barbaresi WJ, Olsen RD1998). An ADHD Educational Intervention for Elementary Schoolteachers: A Pilot Study. *Journal of Developmental and Behavioral Pediatrics: JDBP.* 19, 94.

Barkley RA, Fischer M, Edelbrock CS, Smallish L (1990). The adolescent outcome of hyperactive children diagnosed by research criteria: I. An 8-year prospective follow-up study. *J. Amer. Acad. Child d Adolescent Psychiatry.* 29, 546-557.

Barkley RA, Koplowitz S, Anderson T, Mcmurray MB (1997). Sense of time in children with ADHD: effects of duration, distraction, and stimulant medication. *J. Int. Neuropsychol. Soc., JINS.* 3, 359-369.

Barkley RA (1990). The nature of ADHD. *In:* R. A. BARKLEY ed. *Attention Deficit Hyperactivity Disorder. A Handbook for Diagnosis and Treatment.* New York: Guilford Press, pp. 3–39.

Barkley RA (1997a). Behavioral Inhibition, Sustained Attention, and Executive Functions: Constructing a Unifying Theory of ADHD. *Psychological Bulletin.* 121, 65.

Barkley RA (1997b). Attention-Deficit/Hyperactivity Disorder, Self-Regulation, and Time: Toward a More Comprehensive Theory. Journal of Developmental and Behavioral Pediatrics: *JDBP.* 18, 271.

Barkley RA (1998). *Attention-deficit hyperactivity disorder: a handbook for diagnosis and treatment*. New York, Guilford Press.

Barkley RA (2002). Psychosocial Treatments for Attention-Deficit/Hyperactivity Disorder in Children. *J. Clin. Psychiatry.* 63, 36-43.

Barkley RA (2003). Attention-deficit/hyperactivity disorder. *In:* E. J. MASH and R. A. BARKLEY eds. *Child psychopathology*. New York: Guilford Press, pp. 75–143.

Barkley RA (2006). *Attention-deficit hyperactivity disorder: a handbook for diagnosis and treatment*. New York, Guilford Press.

Barkley RA, Murphy KR (2006). Identifying New Symptoms for Diagnosing ADHD in Adulthood. *The ADHD Report.* 14, 7-11.

Barry TD, Lyman RD, Klinger LG (2002). Academic Underachievement and Attention-Deficit/Hyperactivity Disorder - The Negative Impact of Symptom Severity on School Performance. *J. School Psychol.,* 40, 259.

Bauer AL, Ingersoll E, Burns L (2004). School Counselors and Psychotropic Medication: Assessing Training, Experience, and School Policy Issues. *Professional School Counseling.* 7, 202-211.

Berk LE (2004). *Awakening children's minds how parents and teachers can make a difference*. New York, N.Y., Oxford University Press.

Biederman J, Faraone SV (2005). Attention-deficit hyperactivity disorder. *Lancet.* 366, 16-22.

Biederman J, Faraone SV (2006). The effects of attention-deficit/hyperactivity disorder on employment and household income. *MedGenMed: Medscape General Medicine. p.* 8.

Biederman J, Monuteaux MC, Mick E, Spencer T, Wilens TE, Silva JM, Snyder LE, Faraone SV (2006). Young adult outcome of attention deficit hyperactivity disorder: a controlled 10-year follow-up study. *Psychological Medicine.* 36, 167-179.

Biederman, J., Faraone, S., Milberger, S., Guite, J., Mick, E., Chen, L., Mennin, D., Perrin, J. (1996). A Prospective 4-Year Follow-up Study of Attention-Deficit Hyperactivity and Related Disorders. *Archives of General Psychiatry.* 53, 437.

Biederman J, Faraone SV, Monuteaux MC, Plunkett EA, Gifford J, Spencer T (2003). Growth Deficits and Attention-Deficit/Hyperactivity Disorder Revisited: Impact of Gender, Development, and Treatment. *PEDIATRICS -SPRINGFIELD.* 111, 1010-1016.

Borg WR, Ascione FR (2001). Changing On-Task, Off-Task, and Disruptive Pupil Behavior in Elementary Mainstreaming Classrooms. *J. Educ. Res.,* 72, 243-52.

Boris M, Mandel FS (1994). Foods and additives are common causes of the attention deficit hyperactive disorder in children. *Annals of Allergy.* 72, 462-468.

Boyajian AE, Dupaul GJ, Handler MW, Eckert TL, Mcgoey KE (2001). The Use of Classroom-based Brief

Functional Analyses with Preschoolers At-risk for Attention Deficit Hyperactivity Disorder. *School Psychology Review.* 30, 278-293.

Brassett-Harknett A., Butler, N. (2007). Attention-deficit/hyperactivity disorder: An overview of the etiology and a review of the literature relating to the correlates and lifecourse outcomes for men and women. *Clinical Psychology Review.* 27,188.

Braswell L, Bloomquist ML (1994). Cognitive Behavioral therapy with ADHD Children: Child, Family and School Interventions. *CRIMINAL BEHAVIOUR AND MENTAL HEALTH.* 4, 358.

Brock SE (1997). *Diagnosis of Attention-Deficit/Hyperactivity Disorder (ADHD) in Childhood: A Review of the Literature*. Anaheim CA National Association of School Psychologists.

Brown MB (2000). Diagnosis and Treatment of Children and Adolescents with Attention-Deficit/Hyperactivity Disorder. *J. Counsel. Dev.,* 78, 195-203.

Buitelaar J (2002). Epidemiological aspects:what have we learned over the last decade? *In:* S. SANDBERG, ed. *Hyperactivity and attention disorders of childhood*. Cambridge: University Press, Cambridge, pp. 30–63.

Bussing R, Gary FA., Leon CE, Garvan CW, REID R (2002). General Classroom Teachers' Information and Perceptions of Attention Deficit Hyperactivity Disorder. *Behavioral Disorders: Journal of the Council for Children with Behavioral Disorders.* 27, 327-339.

Buttross LS (2007). *Understanding ADHD*. Jackson, Miss, University Press of Mississippi.

Bymaster FP, Katner JS, Nelson DL, Hemrick-Luecke SK, Threlkeld PG, Heiligenstein JH, Morin, S. M., Gehlert, D. R., Perry KW (2002). Atomoxetine Increases Extracellular Levels of Norepinephrine and Dopamine in Prefrontal Cortex of Rat: A Potential Mechanism for Efficacy in Attention Deficit/Hyperactivity Disorder. *Neuropsychopharmacology.* 27, 699-711.

Cantwell DP (1996). Attention Deficit Disorder: A Review of the Past 10 Years. *J. Amer. Acad. Child Adolescent Psychiatry.* 35, 978.

Carbone E (2001). Arranging the Classroom with an Eye (and Ear) to Students with ADHD. *Teaching Exceptional Children.* 34, 72-81.

Carlson CL, Booth JE, Shin M, Canu WH (2002). Parent-, teacher-, and self-rated motivational styles in ADHD subtypes. *Journal of Learning Disabilities. p.* 35.

Carlson C (1997). *Assessment and nonpharmacological treatment of ADHD*. San Antonio, TX: Pro Ed.

Carter CM, Urbanowicz M, Hemsley R, Mantilla L, Strobel S, Graham PJ, Taylor E (1993). Effects of a few food diet in attention deficit disorder. *Archives of Disease in Childhood.* 69, 564-568.

Castellanos FX, Sonuga-Barke EJ, Milham MP, Tannock R (2006). Characterizing cognition in ADHD: beyond executive dysfunction. *Trends in Cognitive Sciences.* 10, 117-123.

Castellanos FX, Tannock R (2002). Neuroscience of attention-deficit/hyperactivity disorder: the search for endophenotypes. *NATURE REVIEWS NEUROSCIENCE.* 3, 617-628.

Centers For Disease Control And Prevention (CDC). (2005). Mental health in the United States. Prevalence of diagnosis and medication treatment for attention-deficit/hyperactivity disorder--United States, 2003. *MMWR. Morbidity and Mortality Weekly Report.* 54, 842-847.

Chhabildas NA, Pennington BF, WILLCUTT EG (2001). A comparison of the cognitive deficit in the DSM-IV subtypes of ADHD. *J. Abnor. Child Psychol.,* 9, 28–32.

Cipkala-Gaffin JA (1998). Diagnosis and treatment of attention-deficit/hyperactivity disorder. *Perspectives in Psychiatric Care. p.* 34.

Clark C, Prior M, Kinsella G (2002). The relationship between executive function abilities, adaptive behaviour, and academic achievement in children with externalising behaviour problems. *J. Child Psychol. Psychiatry, and Allied Disciplines.* 43, 785-796.

Clark T, Feehan C, Tinline C, Vostanis P (1999). Autistic symptoms in children with attention deficit-hyperactivity disorder. *European Child & Adolescent Psychiatry.* 8, 50-55.

Clarke AR, Barry RJ, Mccarthy R, Selikowitz M, Clarke DC, Croft RJ (2003). Effects of stimulant medications on children with attention-deficit/hyperactivity disorder and excessive beta activity in their EEG. *Clinical Neurophysiology: Official J. Int. Federation Clin. Neurophysiol.,* 114, 1729.

Clarke AR, Barry RJ, Mccarthy R, Selikowitz M, Johnstone SJ, Abbott I, Croft RJ, Magee CA, Hsu C-I, Lawrence CA (2005). Effects of methylphenidate on EEG coherence in Attention-Deficit/Hyperactivity Disorder. *Int. J. Psychophysiol.: Official J. Int. Org. Psychophysiol.,* 58, 4.

Coghill D, Spiel G, Baldursson G, Döpfner M, Lorenzo MJ, Ralston SJ, Rothenberger A, Adore SG (2006). Which factors impact on clinician-rated impairment in children with ADHD? *European Child And Adolescent Psychiatry.* 15, 30-37.

Cohen-Zion M, Ancoli-Israel S (2004). Sleep in children with attention-deficit hyperactivity disorder (ADHD): a review of naturalistic and stimulant intervention studies. *Sleep Medicine Reviews.* 8, 379-402.

Connor DF, Glatt SJ, Lopez ID, Jackson D, Melloni JR, RH (2002). Psychopharmacology and Aggression. I: A Meta-Analysis of Stimulant Effects on Overt/Covert Aggression-Related Behaviors in ADHD. *J. Amer. Acad. Child and Adolescent Psychiatry.* 41, 253.

Cook MN (2005). The Disruptive or ADHD Child: What to Do When Kids Won't Sit Still and Be Quiet. *Focus on Exceptional Children.* 37, ALL.

Cooper P, O'Regan F (2001).*Educating children with ADHD: A Teacher's Manual.* London:Routledge-Falmer.

Das JP, Naglieri JA, Kirby JR (1994). *Assessment of cognitive processes*. Boston, Allyn and Bacon.

Demaray MK, Elting J, Schaefer K (2003). Assessment of Attention-Deficit/Hyperactivity Disorder (ADHD): A Comparative Evaluation of Five, Commonly Used, Published Rating Scales. *Psychology In The Schools.* 40, 341-362.

Demaray MK, Schaefer K, Delong LK (2003). Attention-Deficit/Hyperactivity Disorder (ADHD): A National Survey of Training and Current Assessment Practices in the Schools. *Psychology In The Schools.* 40, 583-598.

Denckla M (2003). ADHD: topic update. *Brain & Development.* 25, 383.

Dewey D, Kaplan BJ, Crawford SG, Wilson BN (2002). Developmental coordination disorder: Associated problems in attention, learning, and psychosocial adjustment. *Human Movement Science.* 21, 905.

Diller L, Goldstein S (2006). Science, ethics, and the psychosocial treatment of ADHD. *Journal of Attention Disorders.* 9, 571-574.

Diller LH (2006). *The last normal child: essays on the intersection of kids, culture, and psychiatric drugs*. Childhood in America. Westport, Conn, Praeger.

Dore W, Brookes D (2008). *Dyslexia and ADHD--: the miracle cure*. London, John Blake.

Douglas VI, Peters KG (1979). Toward a clearer definition of the attention deficit in hyperactive children. *In:* G. A. HALE & M. LEWIS eds. *Attention and the development of cognitive skills.* New York: Plenum, pp. 173—247.

Doyle AE, Faraone SV, Dupre EP, Biederman J (2001). Separating attention deficit hyperactivity disorder and learning disabilities in girls: a familial risk analysis. *Amer. J. Psychia.,* 158, 1666-1672.

Duel BP, Steinberg-Epstein R, Hill M, Lerner M (2003). A Survey of Voiding Dysfunction in Children with Attention Deficit-Hyperactivity Disorder. *The Journal of Urology: Official Journal of the American Urological Association, Inc.* 170, 1521.

Dulcan MK, Benson RS (1997). AACAP Official Action. Summary of the practice parameters for the assessment and treatment of children, adolescents, and adults with ADHD. *J. Amer. Acad. Child Adolescent Psychia.,* 36, 1311-1317.

Dunn DW, Austin JK, Harezlak J, Ambrosius WT (2003). ADHD and epilepsy in childhood. *Developmental Medicine and Child Neurol.,* 45, 50-54.

Dupaul GJ (2007). School-Based Interventions for Students With Attention Deficit Hyperactivity Disorder: Current Status and Future Directions. *SCHOOL PSYCHOLOGY REVIEW.* 36, 183-194.

Dupaul GJ, Eckert TL (1998). Academic Interventions for Students with Attention-Deficit/Hyperactivity Disorder: A Review of the Literature. *READING AND WRITING QUARTERLY.* 14, 59-82.

Dupaul GJ, Stoner G (2004). *ADHD in the schools: assessment and intervention strategies*. The Guilford school practitioner series. New York, Guilford.

Dupaul GJ, Stoner GD (1994). *ADHD in the schools: assessment and intervention strategies*. The Guilford school practitioner series. New York, Guilford Press.

Dupaul GJ, Stoner GD (2003). *ADHD in the schools: assessment and intervention strategies*. The Guilford school practitioner series. New York, Guilford Press.

Dupaul G, Eckert TL (1997). The Effects of School-based Interventions for Attention Deficit Hyperactivity Disorder: A Meta-Analysis. *SCHOOL PSYCHOLOGY REVIEW.* 26, 5-27.

Durston S (2003). A review of the biological bases of ADHD: what have we learned from imaging studies? *Mental Retardation and Developmental Disabilities Research Reviews.* 9, 184-195.

Epstein JN, Erkanli A, Conners CK, Klaric J, Costello JE, Angold A (2003). Relations between Continuous Performance Test performance measures and ADHD behaviors. *J. Abnormal Child Psychol..* 31, 543-554.

Evans SW, Axelrod J, Langberg JM (2004). Efficacy of a school-based treatment program for middle school youth with ADHD: pilot data. *Behavior Modification.* 28, 528-547.

Faraone SV, Perlis RH, Doyle AE, Smoller JW, Goralnick JJ, Holmgren MA, Sklar P (2005). Molecular genetics of attention-deficit/hyperactivity disorder. *Biological Psychiatry.* 57, 1313-1323.

Faraone SV, Biederman J, Milberger S (1994). An Exploratory Study of ADHD among Second-Degree Relatives of ADHD Children. *Biological Psychiatry - New York-.* 35, 398.

Faraone SV, Biederman J, Lehman BK, Spencer T (1993). Intellectual Performance and School Failure in Children With Attention Deficit Hyperactivity Disorder and in Their Siblings. *J. Abnor. Psychol.,* 102, 616.

Faraone SV, Biederman J, Weber W, Russell RL (1998). Psychiatric, Neuropsychological, and Psychosocial Features of DSM-IV Subtypes of Attention-Deficit/Hyperactivity Disorder: Results From a Clinically Referred Sample. *J. Amer. Acad. Child Adolescent Psychiatry.* 37, 185.

Faraone SV, Perlis RH, Doyle AE, Smoller JW, Goralnick, JJ, Holmgren MA, Sklar P (2005). Molecular Genetics of Attention-Deficit/Hyperactivity Disorder. *Biological Psychiatry.* 57, 1313.

Faraone SV, Sergeant J, Gillberg C, Biederman J (2003): The worldwide prevalence of ADHD: Is it an American condition?. *World Psychiatry.* 2, 104–113.

Farrell M (2006). *The effective teacher's guide to behavioural, emotional and social difficulties practical strategies*. London, Routledge.

Fitzgerald M, Bellgrove M, Gill M (2007). *Handbook of attention deficit hyperactivity disorder*. Chichester, England, John Wiley & Sons.

Frank E (2000). The Extent of Teacher Knowledge of ADHD*. Journal of Attention Disorders*. 4. 91-101.

Frazier MR, Merrell KW (1997). Issues in Behavioral Treat-Ment of Attention-Deficit/Hyperactivity Disorder.

Education & Treatment of Children. 20, 441.
Friedman RJ, Doyal GT, Friedman RJ (1992). *Management of children and adolescents with attention deficit-hyperactivity disorder*. Austin, Tex, Pro-Ed.
Gadow KD, Devincent CJ, Pomeroy J (2006). ADHD symptom subtypes in children with pervasive developmental disorder. *Journal of Autism and Developmental Disorders.* 36, 271-283.
Gadow KD, Devincent CJ, Pomeroy J, Azizian A (2004). Psychiatric symptoms in preschool children with PDD and clinic and comparison samples. *Journal of Autism and Developmental Disorders.* 34, 379-393.
Geller DA, Biederman J, Griffin S, Jones J, Lefkowitz TR (1996). Comorbidity of Juvenile Obsessive-Compulsive Disorder with Disruptive Behavior Disorders. *Journal of the American Academy of Child and Adolescent Psychiatry.* 35, 1637.
Geurts HM, Verte S, Oosterlaan J, Roeyers H, Sergeant JA (2005). ADHD subtypes: do they differ in their executive functioning profile? *Archives of Clinical Neuropsychology : the Official Journal of the National Academy of Neuropsychologists.* 20, 457.
Goldstein S, Barkley RA (2004). TALKING TO FAMILIES ABOUT ADHD. *Journal of the American Academy of Child and Adolescent Psychiatry.* 43, 648.
Goldstein S, Naglieri JA (2006). The Role of Intellectual Processes in the DSM-V Diagnosis of ADHD. *Journal of Attention Disorders.* 10, 3-8.
Goldstein S, Naglieri JA (2008). The school neuropsychology of ADHD: Theory, assessment, and intervention. *PSYCHOLOGY IN THE SCHOOLS.* 45, 859-874.
Goodlin-Jones BL, Waters S, Anders TF (2009). Objective sleep measurement in typically and atypically developing preschool children with ADHD-like profiles. *Child Psychiatry and Human Development.* 40, 257-68.
Green C, Chee K (1998). *Understanding ADHD: attention deficit hyperactivity disorder*. New York, Fawcett Columbine.
Hagerman RJ, Hagerman PJ (2001). Fragile X syndrome: a model of gene-brain-behavior relationships. *Molecular Genetics and Metabolism. p.* 74.
Hailemariam A, Bradley-Johnson S, Johnson CM (2002). Pediatricians' preference for ADHD information from schools. *School Psychol. Rev.* 31(1) 94 – 105.
Hall AS, Gushee AG (2000). Diagnosis and Treatment with Attention Deficit Hyperactive Youth: Mental Health Consultation with School Counselors. *Journal of Mental Health Counseling.* 22, 295-305.
Hartmann T (1996). *Beyond ADD: hunting for reasons in the past and the present*. Grass Valley, Calif, Underwood Books.
Hartmann T (2003). *The Edison gene: ADHD and the gift of the hunter child*. Rochester, Vt, Park Street Press.
Hartnett DN, Nelson JM, Rinn AN (2004). Gifted or ADHD? The Possibilities of Misdiagnosis. *Roeper Review.* 26, 73-77.
Henneberg E (2007). *Together we succeed: a team approach to optimize your child's ADHD treatment plan*. [Sutton, Québec], Communications Message & More.
Hill P, Taylor E (2001). An auditable protocol for treating attention deficit/hyperactivity disorder. *Archives of Disease in Childhood.* 85, 404-409.
Hinshaw SP (1991). Stimulant medication and the treatment of aggression in children with intentional deficits. *J. Clin. Child Psychol.,* 20(3), 301–312.
Hinshaw SP (1992). Academic Underachievement, Attention Deficits, and Aggression: Comorbidity and Implications for Intervention. *J. Consul. Clin. Psychol.,* 60, 893.
Hinshaw SP (1994). Attention Deficits and Hyperactivity in Children. *Developmental Clinical Psychology and Psychiatry.* 29, ALL.
Hinshaw SP, Lee SS (2000). Ritalin effects on aggression and antisocial behavior. *In:* L. L. GREENHILL, & B. B. OSMAN eds. *Ritalin: Theory and patient management*. Larchmont, NY: M. A. Liebert Publishers, pp. 237–251.
Hoff KE, Doepke K, Landau S (2002). Best practices in the assessment of children with attention-deficit / hyperactivity disorder: Linking assessment to intervention. *In:* A. THOMAS and J. GRIMES, eds. *Best practices in school psychology*. Bethesda, MD: National Association of School Psychologists, pp. 1129-1150.
Hoza B, Pelham WE, Waschbusch DA, Kipp H, Owens JS (2001). Academic task persistence of normally achieving ADHD and control boys: performance, self-evaluations, and attributions. *J. Consul. Clin. Psychol.,* 69, 271-283.
Hoza B (2007). Peer functioning in children with ADHD. *J. Pediatric Psychol.* 32, 655-663.
Huang-Pollock CL, Mikami AY, Pfiffner L, Mcburnett K. (2007). ADHD subtype differences in motivational responsivity but not inhibitory control: evidence from a reward-based variation of the stop signal paradigm. *Journal of Clinical Child and Adolescent Psychology: the Official Journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53.* 36.
Hughes L, Cooper P (2007). *Understanding and supporting children with ADHD: strategies for teachers, parents and other professionals*. London, Paul Chapman.
Hulme C, Snowling MJ (2009). *Developmental disorders of language learning and cognition*. Chichester, U.K., Wiley-Blackwell.
Hupp S (2003). Effects of delayed rewards, tokens, and stimulant medication on sportsmanlike behavior with ADHD-diagnosed children. *Sage Family Studies Abstracts: Trends in Marriage, Family, and Society. p.* 25.
Jensen PS, Mrazek D, Knapp PK, Steinberg L, Pfeffer C, Sehowalter J, Shapiro T (1997). Evolution and Revolution in Child Psychiatry: ADHD as a Disorder of Adapta-

tion. *Journal of the American Academy of Child and Adolescent Psychiatry.* 36, 1672.
Jerome L, Gordon M, Hustler P (1994). A comparison of American and Canadian teachers' knowledge and attitudes towards Attention Deficit Hyperactivity Disorder (ADHD). *Canadian Journal of Psychiatry. Revue Canadienne De Psychiatrie.* 39, 563-567.
Johnston C, Mash EJ (2001). Families of children with attention-deficit/hyperactivity disorder: review and recommendations for future research. *Clinical Child and Family Psychology Review.* 4, 183-207.
Jones HA, Chronis-Tuscano A (2008). Efficacy of teacher in-service training for attention-deficit/hyperactivity disorder. *PSYCHOLOGY IN THE SCHOOLS.* 45, 918-929.
Julien RM (2005). *A primer of drug action: a comprehensive guide to the actions, uses, and side effects of psychoactive drugs*. New York, N.Y., Worth Publishers.
Kehoe WA (2001). Treatment of attention deficit hyperactivity disorder in children. *The Annals of Pharmacotherapy.* 35, 1130-1134.
Kendall J, LEO MC, PERRIN N, HATTON D (2005). Service needs of families with children with ADHD. *Journal of Family Nursing.* 11, 264-288.
Kendall J (1999). Sibling accounts of attention deficit hyperactivity disorder (ADHD). *Family Process.* 38, 117-136.
Klein RG, Landa B, Mattes JA, Klein DF (1988). Methylphenidate and growth in hyperactive children. A controlled withdrawal study. *Archives of General Psychiatry.* 45, 1127-1130.
Kothari PM, Frosch E (2004). Attention-Deficit/Hyperactivity Disorder: A Clinical Guide to Diagnosis and Treatment for Health and Mental Health Professionals. *Journal Of Child And Adolescent Psychopharmacology.* 14, 640-641.
Kuperman S, Perry PJ, Gaffney GR, Lund BC, Bever-Stille KA, Arndt S, Holman TL, Moser DJ, Paulsen JS (2001). Bupropion SR vs. methylphenidate vs. placebo for attention deficit hyperactivity disorder in adults. *Annals of Clinical Psychiatry: Official Journal of the American Academy of Clinical Psychiatrists.* 13, 129-134.
Landau S, Burcham BG (1996). Best practices in the assessment of children with attention disorders. *In:* Best Practices in School Psychology III. Bethesda, MD: National Association of School Psychologists, pp. 817–829.
Lange G, Sheerin D, Carr A, Dooley B, Barton V, Marshall D, Mulligan A, Lawlor M, Belton M, Doyle M (2005). Family factors associated with attention deficit hyperactivity disorder and emotional disorders in children. *Journal of Family Therapy.* 27, 76-96.
Lauth GW, Heubeck BG, Mackowiak K (2006). Observation of children with attention-deficit hyperactivity (ADHD) problems in three natural classroom contexts. *Bri. J. Educ. Psychol.* 76, 385-404.
Levy F, Hay DA, Mcstephen M, Wood C, Waldman I (1997). Attention-Deficit Hyperactivity Disorder: A Category or a Continuum? Genetic Analysis of a Large-Scale Twin Study. *J. Amer. Acad. Child Adolescent Psychia.,* 36, 737.
Lloyd JW (1991). Why Do Teachers Refer Pupils for Special Education? An Analysis of Referral Records. *Exceptionality: A Res. J.,* 2, 115-126.
Loeber R, Burke JD, Lahey BB, Winters A, ZERA M (2000). Oppositional defiant and conduct disorder: a review of the past 10 years, part I. *J. Amer. Acad. Child Adolesc. Psychia.,* 39, 1468-1484.
Lopez FA (2007). Children's Health: Managing ADHD during the School Year. *Exceptional Parent.* 37, 46.
Lougy RA, Deruvo SL, Rosenthal D (2009). *The school counselor's guide to ADHD: what to know and do to help your students*. Thousand Oaks, Corwin Press.
Lougy RA, Deruvo SL, Rosenthal DK (2007). *Teaching young children with ADHD: successful strategies and practical interventions for preK-3*. Thousand Oaks, CA, Corwin Press.
Lowe, N., Kirley, A., Hawi, Z., Sham, P., Wickham, H., Kratochvil, C. J., Smith, S. D., Gill, M. (2004). Joint analysis of the DRD5 marker concludes association with attention-deficit/hyperactivity disorder confined to the predominantly inattentive and combined subtypes. *American Journal of Human Genetics.* 74, 348-356.
Lubar JF, White JR, JN, Swartwood MO, Swartwood JN (1999). Methylphenidate Effects on Global and Complex Measures of EEG. *Pediatric Neurology.* 21, 633.
Magyary D, Brandt P (2002). A Decision Tree And Clinical Paths For The Assessment And Management Of Children With ADHD. *Issues in Mental Health Nursing.* 23, 553-566.
Markowitz JS, Patrick KS (2008). Given the multifaceted nature of ADHD, namely its physiologic, cognitive, psychological, and behavioral manifestations, multimodal approaches to treatment are advocated. Introduction. *J. Clin. Psychopharmacol.,* 28, 37-8.
Martel M, Nikolas M, Nigg JT (2007). Executive function in adolescents with ADHD. *Journal Amer. Acad. Child Adolesc. Psychia.,* 46, 1437-1444.
Martinussen R, Hayden J, Hogg-Johnson S, Tannock R (2005). A Meta-Analysis of Working Memory Impairments in Children With Attention-Deficit/Hyperactivity Disorder. *J. Amer. Acad. Child and Adolescent Psychiatry.* 44, 377.
Mattox R, Harder J (2007). Attention Deficit Hyperactivity Disorder (ADHD) and Diverse Populations. *Child and Adolescent Social Work Journal*. 24, 195-207.
Mclaughlin TF, Williams BT, Howard VF (2003). *Working with children with attention deficit and attention deficit hyperactivity disorder: A manual for teachers, parents and child care workers.* Spokane, WA: Gonzaga University.
Mick E, Biederman J, Jetton J, Faraone SV (2000). Sleep Disturbances Associated with Attention Deficit Hyperactivity Disorder: The Impact of Psychiatric Comorbi-

dity and Pharmacotherapy. *J. Child Adolesc. Psychopharmacol.,* 10, 223-231.
Miller LS, Koplewicz HS, Klein RG (1997). Teacher ratings of hyperactivity, inattention, and conduct problems in preschoolers. *J. Abnor. Child Psychol.,* 25, 113-9.
Monastra VJ, Monastra DM, George S (2002). The Effects of Stimulant Therapy, EEG Biofeedback, and Parenting Style on the Primary Symptoms of Attention-Deficit/Hyperactivity Disorder.*Applied Psychophysiology and Biofeedback.* 27, 231-249.
MTA Cooperative Group (1999a). A 14-month randomized clinical trial of treatment strategies for attention-deficit/hyperactivity disorder. Archives of General Psychiatry, 56, 1073-1088.
MTA Cooperative Group (1999b). Moderators and mediators of treatment response for children with attention-deficit/hyperactivity disorder. Archives of General Psychiatry, 56, 1088-1096.
Naglieri JA, Goldstein S, Iseman JS, Schwebach A (2003). Performance of Children with Attention Deficit Hyperactivity Disorder and Anxiety/Depression on the WISC-III and Cognitive Assessment System (CAS). *Journal of Psychoeducational Assessment.* 21, 32-42.
National Institute For Clinical Excellence (GREAT BRITAIN) (2000). *Guidance on the use of methylphenidate (Ritalin, Equasym) for attention deficit/hyperactivity disorder (ADHD) in childhood*. London, National Institute for Clinical Excellence.
Neuman R, Todd R, Heath A, Reich W, Hudziak J, Bucholz K, Madden P, Reich T. (1999). Evaluation of ADHD typology in three contrasting samples: a latent class approach. *J. Amer. Acad. Child Adolesc. Psychia.,* 38, 25-33.
Neuwirth S (2005). *Attention deficit hyperactivity disorder*. Albany, NY, New York State Office of Mental Health.
Neven RS, Anderson V, Godber T (2003). *Rethinking ADHD: integrated approaches to helping children at home and at school*. St. Leonards, N.S.W., Allen & Unwin.
Nigg JT (2006). Temperament and developmental psychopathology. *J. Child Psychol. Psychia.,* 47, 395-422.
Northup J, Gulley V (2001). Some Contributions of Functional Analysis to the Assessment of Behaviors Associated with Attention Deficit Hyperactivity Disorder and the Effects of Stimulant Medication. *SCHOOL PSYCHOLOGY REVIEW.* 30, 227-238.
O'Regan FJ (2005). *ADHD*. The SEN series. London, Continuum.
Owens JA (2005). The ADHD and sleep conundrum: a review. *Journal of Developmental and Behavioral Pediatrics: JDBP.* 26, 312-322.
Pataki CS, Carlson GA, Kelly KL, Rapport MD (1993). Side Effects of Methylphenidate and Desipramine Alone and in Combination in Children. *Journal-American Academy Of Child And Adolescent Psychiatry.* 32, 1065.
Pelham WE JR, Fabiano GA, Massetti GM (2005). Evidence-based assessment of attention deficit hyperactivity disorder in children and adolescents. *Journal of Clinical Child and Adolescent Psychology: the Official J. Soc. Clin. Child Adolescent Psychology, American Psychological Association, Division 53.* 34, 449-476.
Pierangelo R, Giuliani GA (2008). *Classroom management techniques for students with ADHD*. A step-by-step guide for educators. Thousand Oaks, CA, Corwin Press.
Pitcher TM, Piek JP, Hay DA (2003). Fine and gross motor ability in males with ADHD. *Developmental Medicine and Child Neurol.* 45, 525-535.
Pliszka SR, Carlson CL, Swanson JM (1999). *ADHD with comorbid disorders: clinical assessment and management*. New York, Guilford Press.
Podolski C-L, Nigg JT (2001). Parent Stress and Coping in Relation to Child ADHD Severity and Associated Child Disruptive Behavior Problems. *J. Clin. Child Adolesc. Psychol.,* 30, 503-513.
Polanczyk G, DE Lima MS, Horta BL, Biederman J, Rohde LA (2007). The worldwide prevalence of ADHD: a systematic review and metaregression analysis. *Amer. J. Psychia.,* 164, 942-8.
Prince JB, Wilens TE, Biederman J, Spencer TJ, Millstein R, Polisner DA, Bostic JQ (2000). A Controlled Study of Nortriptyline in Children and Adolescents with Attention Deficit Hyperactivity Disorder. *J. Child Adolescent Psychopharmacol.,* 10, 193-204.
Purdie N, Hattie J, Carroll A (2002). A Review of the Research on Interventions for Attention Deficit Hyperactivity Disorder: What Works Best? *REVIEW OF EDUCATIONAL RESEARCH.* 72, 61-100.
Raggi VL (2003). *Clinical utility of the impairment rating scale for children*. Thesis (M.A.)--James Madison University, 2003.
Raggio DJ (1999). Visuomotor Perception in Children With Attention Deficit Hyperactivity Disorder-Combined Type. *Perceptual and Motor Skills.* 88, 448.
Rapport MD, Kofler MJ, Alderson RM, Timko TM JR, Dupaul GJ (2009). Variability of Attention Processes in ADHD: Observations from the Classroom. *Journal of Attention Disorders.* 12, 563-573.
Rapport MD, Scanlan SW, Denney CB (1999). Attention-Deficit/Hyperactivity Disorder and Scholastic Achievement: A Model of Dual Developmental Pathways. *J. Child Psychol. Psychia.,* 40, 1169-1183.
Rasmussen ER, Neuman RJ, Heath AC, Levy F, Hay DA, Todd RD (2004). Familial clustering of latent class and DSM-IV defined attention-deficit/hyperactivity disorder (ADHD) subtypes. *Journal of Child Psychology and Psychiatry, and Allied Disciplines.* 45, 589-598.
Reid R (1999). Attention Deficit Hyperactivity Disorder: Effective Methods for the Classroom. *Focus on Exceptional Children.* 32, 1-20.
Reid R, Reason R, Maag J, Prosser B (1998). Attention Deficit Hyperactivity Disorder in schools: a perspective

on perspectives. *Educational and Child Psychol.,* 15, 56.

Reid R, Vasa SF, Maag JW, Wright G (1994). An Analysis of Teachers' Perceptions of Attention Deficit-Hyperactivity Disorder. *J. Res. Dev. Edu.,* 27, 195.

Rief SF (2005). *How to reach and teach children with ADD/ADHD: practical techniques, strategies, and interventions*. Jossey-Bass teacher. San Francisco, Calif, Jossey-Bass.

Rief Sandra F (2008). *ADHD & LD Powerful Teaching Strategies and Accommodations*. Jossey-Bass Inc Pub.

Riley AW, Coghill D, Forrest CB, Lorenzo MJ, Ralston SJ, Spiel G, Adore SG (2006). Validity of the health-related quality of life assessment in the ADORE study: Parent Report Form of the CHIP-Child Edition. *European Child and Adolescent Psychiatry.* 15, 63-71.

Rosler M, Retz W, Yaqoobi K, Burg E, Retz-Junginger P (2009). Attention deficit/hyperactivity disorder in female offenders: prevalence, psychiatric comorbidity and psychosocial implications. *European Archives of Psychiatry and Clinical Neuroscience.* 259, 98-105.

Rowland AS, Lesesne CA, Abramowitz AJ (2002). The epidemiology of attention-deficit/hyperactivity disorder (ADHD): a public health view. *Mental Retardation and Developmental Disabilities Research Reviews.* 8, 162-170.

Ryan N, Mcdougall T (2009). *Nursing children and young people with ADHD*. London, Routledge.

Sadock BJ, Kaplan HI, Sadock VA (2007). *Kaplan & Sadock's synopsis of psychiatry: behavioral sciences/clinical psychiatry*. Philadelphia, Wolter Kluwer/Lippincott Williams & Wilkins.

Salend S, Elhoweris H, Van Garderen D (2003). Educational Interventions for Students with ADD. *Intervention in School and Clinic.* 38, 280-288.

Sandberg S (1996). Hyperkinetic or attention deficit disorder. *The Bri. J. Psychia.,* 169, 10.

Sandberg S (2002). *Hyperactivity and attention disorders of childhood*. Cambridge, UK, Cambridge University Press.

Santosh PJ, Mijovic A (2004). Social impairment in Hyperkinetic Disorder - relationship to psychopathology and environmental stressors. *European Child & Adolescent Psychiatry.* 13, 141-150.

Sawyer, M. G., Arney, F. M., Baghurst, P. A., Clark, J. J., Graetz, B. W., Kosky, R. J., Nurcombe, B., ... Zubrick, S. R. (2001). The mental health of young people in Australia: key findings from the child and adolescent component of the national survey of mental health and well-being. *The Australian and New Zealand Journal of Psychiatry.* 35, 806-814.

Sax L, Kautz KJ (2003). Who first suggests the diagnosis of attention-deficit/hyperactivity disorder? *Annals of Family Medicine.* 1.

Sayal K, Goodman R, Ford T (2006). Barriers to the identification of children with attention deficit/hyperactivity disorder. *J. Child Psychol. Psychia. Allied Disciplines.* 47, 744-750.

Sayal K (2006a). Annotation: Pathways to care for children with mental health problems. *J. Child Psychol. Psychia. Allied Disciplines.* 47, 649-659.

Sayal K (2006b). Identification of children at risk of Attention Deficit/Hyperactivity Disorder. *Social Psychiatry And Psychiatric Epidemiology.* 41, 813.

Sayal K, Taylor E, Beecham J, Byrne P (2002). Pathways to care in children at risk of attention - deficit hyperactivity disorder. *Bri. J. Psychia.,* 181, 43-48.

Schmidt MH, Mocks P, Lay B, Eisert HG, Fojkar R, Fritz-Sigmund D, Marcus A, Musaeus B (1997). Does oligoantigenic diet influence hyperactive/conduct-disordered children--a controlled trial. *European Child & Adolescent Psychiatry.* 6, 88-95.

Sciutto MJ, Terjesen MD, Bender Frank AS (2000). Teachers' Knowledge and Misperceptions of Attention-Deficit/Hyperactivity Disorder. *Psychology In The Schools.* 37, 115-122.

Seipp CM, Johnston C (2005). Mother-Son Interactions in Families of Boys With Attention-Deficit/Hyperactivity Disorder With and Without Oppositional Behavior. *J. of Abnor. Child Psychol.,* 33, 87-98.

Selikowitz M (2004). *ADHD: the facts*. Oxford, Oxford University Press.

Selikowitz M (2009). *ADHD*. Oxford, Oxford University Press.

Semrud-Clikeman M, Biederman J, Sprich-Buckminster S, Lehman BK, Faraone SV, Norman D (1992). Comorbidity between ADDH and learning disability: a review and report in a clinically referred sample. *J. Amer. Acad. Child Adolesc. Psychia.,* 31, 439-448.

Sergeant JA (2005). Modeling Attention-Deficit/Hyperactivity Disorder: A Critical Appraisal of the Cognitive-Energetic Model. *Biological Psychiatry.* 57, 1248.

Shapiro ES, Heick PF (2004). School Psychologist Assessment Practices in the Evaluation of Students Referred for Social/Behavioral/Emotional Problems. *PSYCHOLOGY IN THE SCHOOLS.* 41, 551-562.

Shattell MM, Bartlett R, Rowe T (2008). "I Have Always Felt Different": The Experience of Attention-Deficit/Hyperactivity Disorder in Childhood. *J. Pediatric Nursing.* 23, 49.

Shaywitz BA, Fletcher JM, Holahan JM, Shaywitz SE (1992). Discrepancy Compared to Low Achievement Definitions of Reading Disability: Results from the Connecticut Longitudinal Study. *J. of Learning Disabilities.* 25, 639.

Shaywitz SE, Shaywitz BA (1992). *Attention deficit disorder comes of age: toward the twenty-first century*. Austin, Tex, PRO-ED.

Shriner MC (2007). *Trends in attention deficit hyperactivity disorder research*. New York, Nova Bio-medical Books.

Skinner ME, Hales MR (1992). Classroom Teachers' ' Explanations ' of Student Behavior: One Possible Barrier to the Acceptance and Use of Applied Behavior Analysis Procedures in the Schools. *Journal of Educational and Psychological Consultation.* 3, 219-232.

Skounti M, Philalithis A, Galanakis E (2007). Variations in prevalence of attention deficit hyperactivity disorder worldwide. *European Journal of Pediatrics.* 166, 117-123.

Sonuga-Barke EJS (2005). Causal Models of Attention-Deficit/Hyperactivity Disorder: From Common Simple Deficits to Multiple Developmental Pathways. *Biological Psychiatry.* 57, 1231.

Spencer TJ, Adler LA, Mcgough JJ, Muniz R, Jiang H, Pestreich L (2007). Efficacy and safety of dexmethylphenidate extended-release capsules in adults with attention-deficit/hyperactivity disorder. *Biological Psychiatry.* 61, 1380-1387.

Spencer TJ, Biederman J, Wilens TE, Harding M (1997). Pharmacotherapy of Attention-Deficit Hyperactivity Disorder Across the Life Cycle. *Annual Progress in Child Psychiatry and Child Development. p.* 217.

Steer CR (2005). Managing attention deficit/hyperactivity disorder: unmet needs and future directions. *Archives of Disease in Childhood.* 90, 19-25.

Stormont M (2001). Social Outcomes of Children with AD/HD: Contributing Factors and Implications for Practice. *Psychology In The Schools.* 38, 521-532.

Swanson JM, Mcburnett K, Christian DL, Wigal T (1995). Stimulant Medications and the Treatment of Children with ADHD. *Advances In Clinical Child Psychology.* 17, 265.

Swanson JM, Mcburnett K, Wigal T, Pfiffner LJ (1993). Effect of Stimulant Medication on Children with Attention Deficit Disorder: A "Review of Reviews". *EXCEPTIONAL CHILDREN.* 60, 154.

Swensen AR, Birnbaum HG, Secnik K, Marynchenko M, Greenberg P, Claxton A (2003). Attention-Deficit/Hyperactivity Disorder: Increased Costs for Patients and Their Families. *J. Amer. Acad. Child Adolesc. Psychia.,* 42, 1415.

Taylor E, Dopfner M, Sergeant J, Asherson P, Banaschewski T, Buitelaar J, Coghill D, Danckaerts M, Rothenberger A, Sonuga-Barke E (2004). European clinical guidelines for hyperkinetic disorder - first upgrade. *EUROPEAN CHILD AND ADOLESCENT PSYCHIATRY.* 13, 7-30.

Taylor HE, Larson S (1998). Teaching Children with ADHD-What Do Elementary and Middle-School Teachers Need to Know? *SOCIAL STUDIES - BROOKLYN NEW JERSEY THEN WASHINGTON-.* 89, 161-164.

Thomas A, Grimes J (1995). *Best practices in school psychology, III*. Washington, DC, National Association of School Psychologists.

Tirosh E, Cohen A (1998). Language deficit with attention-deficit disorder: a prevalent comorbidity. *J. Child Neurology.* 13, 493-497.

Travell C, Visser J (2006). 'ADHD does bad stuff to you': young people's and parents' experiences and perceptions of Attention Deficit Hyperactivity Disorder (ADHD). *Emotional And Behavioural Difficulties.* 11, 205-216.

Trott GT (2006). Attention-deficit/hyperactivity disorder (ADHD) in the course of life. *European Archives of Psychiatry and Clinical Neuroscience.* 256, 21-25.

Voeller KK (2004). Attention-deficit hyperactivity disorder (ADHD). *J. Child Neurol.* 19, 798-814.

Volkow ND, Wang G, Fowler JS, Logan J, Gerasimov M, Maynard L, Ding Y, Gatley SJ, Gifford A, Franceschi D (2001). Therapeutic doses of oral methylphenidate significantly increase extracellular dopamine in the human brain. *The J. Neurosci.: the Official J. Soc. Neurosci., p.* 21.

Walter HJ, Gouze K, Lim KG (2006). Teachers' beliefs about mental health needs in inner city elementary schools. *J. Amer. Acad. Child Adolesc. Psychia.,* 45, 61-68.

Wang XL (2004). Engaging ADHD students in tasks with hand gestures: a pedagogical possibility for teachers. *Educational Studies -Oxford Then Abingdon-.* 30, 217-230.

Weinstein R (2004). *ADD/ADHD and school*. AD/HD. London, Paul Chapman.

Wender PH (2000). *ADHD: attention-deficit hyperactivity disorder in children, adolescents, and adults*. New York, Oxford University Press.

Wheeler L, Pumfrey P, Wakefield P (2009). Variability of ADHD symptoms across primary school contexts: an in-depth case study. *Emotional and Behavioural Difficulties.* 14, 69-84.

Wilens TE, Biederman J (1992). The stimulants. *The Psychiatric Clinics of North America.* 15, 191-222.

Wolraich ML, Bickman L, Lambert, EW, Simmons T, Doffing MA (2005). Intervening to Improve Communication between Parents, Teachers, and Primary Care Providers of Children with ADHD or at High Risk for ADHD. *Journal of Attention Disorders.* 9, 354-368.

Wolraich ML, Hannah JN, Pinnock TY, Baumgaertel A, Brown J (1996). Comparison of Diagnostic Criteria for Attention-Deficit Hyperactivity Disorder in a County-Wide Sample. *J. Amer. Acad. Child Adolesc. Psychia.,* 35, 319.

World Health Organization (1992). *ICD-10, the ICD-10 classification of mental and behavioural disorders: clinical descriptions and diagnostic guidelines*. Geneva, World Health Organization.

Yehle AK, Wambold C (1998). An ADHD Success Story: Strategies for Teachers and Students. *Teaching Exceptional Children.* 30, 8.

Young S, Gudjonsson G, Ball S, Lam J (2003). Attention
Deficit Hyperactivity Disorder (ADHD) in personality disordered offenders and the association with disruptive behavioural problems. *Journal Of Forensic Psychiatry And Psychology.* 14, 491-505.

Zentall SS (1993). Research on the Educational Implications of Attention Deficit Hyperactivity Disorder. *EXCEPTIONAL CHILDREN.* 60, 143.

Zentall SS, Javorsky J (2007). Professional Development

for Teachers of Students With ADHD and Characteristics of ADHD. *Behavioral Disorders: Journal of the Council for Children with Behavioral Disorders.* 32, 78-93.